PATENT CLAIMS

1. An arrangement for implants (15) bearing growth-stimulating substance or substances, here called GSS, which, when the implant is in its position fitted in a jaw bone hole (2), is arranged to interact with cell-containing body fluid (9), for example fluid containing stem cells, secreted at the jaw bone and thus form new bone alongside the implant, characterized in that the implant is arranged with an outer surface which can be placed against a wall of the jaw bone hole and which is arranged with first portions (3, 4) of first diameters (D) or radii (R) and second portions (3a, 4a) of second diameters (D') or radii (R') smaller than the first diameters and radii, and in that the implant bears against or cooperates with the hole wall via the first portions and, by means of the second portions and together with the hole wall, forms one or more closed spaces (15, 15) into which body fluid can penetrate and GSS can be released.

2. The arrangement as claimed in patent claim 1, characterized in that the outer surface that can be placed against the wall of the jaw bone hole (2) is provided with one or more threads (3, 4) or thread sections and in that the first portions comprise the thread crests or thread outer parts of the threads or thread sections, the second portions comprise ~~the bottom parts or inner parts~~ of the threads, and said closed spaces (5) are situated between the thread crests or thread outer parts.

3. The arrangement as claimed in patent claim 2, characterized in that each thread extends along all or most of the circumference of the implant.

4. The arrangement as claimed in patent claim 1, 2 or 3, characterized in that the outer surface or the thread or threads is/are provided with porous oxide layers, by means of which GSS can be stored on the implant.

5. The arrangement as claimed in any of patent claims 1-4, characterized in that the implant bears most of the total quantity of the GSS at said closed spaces (5).

6. The arrangement as claimed in any of patent claims 1-5, characterized in that, when the implant is in its position fitted in the jaw bone hole (2), the first portions are arranged with a degree of cooperation with the hole wall which affords an initial positional stability for the implant in the jaw bone.

7. The arrangement as claimed in patent claim 6, characterized in that the first portions (3, 4) have a degree of penetration into the jaw bone in the range of 5-20% of the height of the first portions above the second portions.

8. The arrangement as claimed in any of the preceding patent claims, characterized in that the outer thread(s) or outer parts have a thread depth which on the one hand affords a screwing-in function in the hole wall in the jaw bone and on the other hand provides for formation of said closed spaces (5).

9. The arrangement as claimed in any of the preceding patent claims, characterized in that the implant has longitudinal and/or transverse recesses (16 and 5'', 5''') which are charged or provided with GSS of identical or different concentrations in possible cooperation with calcium phosphate(s), autologous bone, allogenic bone, xenografts, polymer material, etc.

10. An implant which can be fitted in a jaw bone hole (4) created by hole formation or tooth root extraction, characterized in that it is on the one hand provided with osteoinductive material in the form of growth-stimulating substance(s), here called GSS, arranged to interact with cells present in body fluid in enclosed spaces at the jaw bone hole so that new bone is formed, and, on the other hand, its inner parts are configured in close or substantial approximation to the line(s) of the hole in the jaw bone at its inner parts.

11. The implant as claimed in patent claim 10, characterized in that the implant is designed to extend or branch substantially like the tooth root of the tooth.

12. The implant as claimed in patent claim 10 or 11, characterized in that, at its inner parts, the implant is curved in relation to the main longitudinal extent of the implant.

13. The implant as claimed in patent claim ~~12~~, characterized in that the implant is designed with two or three parts arranged in relation to the main direction.

14. The implant as claimed in any of patent claims 10-13, characterized in that, when it is in its

position fitted in the hole, one or more spaces can be formed between the inner parts and the wall(s) of the hole, in which space or spaces said interaction is intended to take place.

15. The implant as claimed in any of patent claims 10-14, characterized in that, at least at its inner branching parts, the implant bears growth-stimulating substance(s) on the outer surfaces of the branches.

16. The implant as claimed in any of patent claims 10-15, characterized in that it can be fitted in the jaw bone hole by means of a downwardly or inwardly directed pressing force applied to the implant, preferably of a manual nature.

17. The implant as claimed in any of patent claims 10-16, characterized in that the outer surface(s) of each branch at the implant's inner parts is/are provided with a surface roughness or porous oxide layer, by means of which GSS can be stored in layers of identical or varying concentration.